

## APPENDIX

NOTES FOR FOMC MEETING  
May 17, 1988

Sam Y. Cross

Overall, dollar exchange rates have traded within a relatively narrow range for most of the time since your last meeting. An abrupt movement occurred in mid-April when dollar rates dropped lower in response to the release of disappointing U.S. trade and price figures. But the dollar steadied quickly after concerted intervention by the U.S. and several foreign monetary authorities. After that it tended to trade stably but did jump up by about one percent after the unexpectedly good trade figures were announced this morning.

Throughout most of this period, the dollar exchange rate has been held in rough balance by offsetting impulses.

Favoring the dollar, there is a widely held market view that the G-7 authorities will firmly resist any substantial dollar slippage, and that has given the dollar some support. The successive G-7 statements, most recently after the April 13th meeting affirming official commitment to exchange rate stability, have gained greater conviction and credibility, particularly since we haven't seen in recent months the public bickering among senior financial officials that was so prevalent last year. Also the market was impressed by the forcefulness and effectiveness of the coordinated intervention operation in early January and again in mid-April. In addition, now that U.S. economic growth is looking more robust and recession is not in the picture, the U.S. policy stance needed for domestic stability is seen to be

compatible with that needed for external adjustment, and U.S. policymakers are regarded as facing less of a dilemma. Indeed, the exchange market seems to have been reassured by signs that the Federal Reserve adopted a less accommodative stance. The rise in the Fed funds rates in early April, and the further rise last week, both added to support for the dollar, as short-term interest differentials favorable to the dollar widened.

Counterbalancing these favorable factors, concerns about the progress of adjustment and the financing of the current account deficit are tending to hold the dollar down. The adjustment process appears at best to be operating very slowly and unevenly. With domestic demand in the United States continuing to show strength, much of the commentary from the press and from the market focuses on the risks that the adjustment process is getting off track. The danger is that domestic demand will continue to suck in more imports while capacity constraints limit the growth in exports. Today's trade figures will be seen as more reassuring, but of course there have been other occasions when we've seen good trade figures for a single month.

The market is also uncertain about how the U.S. deficit will be financed this year. With the central banks having financed the bulk of the U.S. current account deficit last year, foreign dollar reserves are very high. These foreign central banks may lose their taste for buying so many dollars in the exchange market, and indeed there is talk in some quarters of the need to diversify reserves into other currencies. So far this year, with the dollar stable and much less official intervention, it appears

that private flows are financing a much larger share of the deficit. Through April, dollar purchases of the G-10 plus the rest of Europe have been equal to about 30 percent of our estimated deficit whereas last year they equalled 75 percent. So private flows seem to be covering a good share of the financing. Even so, some private investors express concern about the level of their dollar-denominated holdings and seem to be looking for alternative investments, for example in the United Kingdom, Canada, and Australia.

With these counteracting forces, the dollar has traded in a relatively narrower range than earlier, but market participants are watching carefully to see whether the dollar will be kept attractive enough to bring in the necessary amounts.

I would like to ask your approval for the FOMC operations undertaken since your last meeting. The Desk's operations for the FOMC were conducted on two days, April 14 and 15, in response to downward pressures coming from worse-than-expected figures on U.S. trade and producer prices. These purchases of \$240 million against marks were financed by the Federal Reserve through the sale of mark balances. The Desk also operated on behalf of the U.S. Treasury on three days. On March 29th, the day of your last meeting, the Desk bought \$50 million against the sale of yen, financed out of ESF balances. At the same time that the Desk was intervening for the FOMC on April 14 and 15, it bought \$260 million against yen, financed by the sale of SDR's under agreement with Japan. In addition, to replenish reserves, the System bought \$9.4 million equivalent of yen from customers.

PETER D. STERNLIGHT  
NOTES FOR FOMC MEETING  
MAY 17, 1988

The Domestic Trading Desk undertook two small restraining moves during the past intermeeting period. The first was an immediate outgrowth of the March 29 Committee meeting, entailing a \$100 million increase in the path allowance for seasonal and adjustment borrowing to a level of \$300 million. This was expected to be associated with a rise in typical Federal funds rates from the area of 6-1/2 percent to about 6-3/4 percent. The second tug on the reins came in early May, in response to a sense that recent economic data have been showing appreciable strength, with possible inflationary implications, while broad money measures have grown in the upper parts of their ranges. Following consultation with the Chairman, the path borrowing allowance was raised by a further \$100 million to \$400 million--with an associated expectation that Fed funds would trade in the area of about 7 percent.

Another path change during the period was the use of a modestly higher standard allowance for excess reserves -- \$950 million rather than \$850 million, in recognition of further increases in typical levels of excess reserve demand. This change had little practical impact on reserve pressures, since we tend to make allowances in each reserve period for the likelihood that excess reserve demands may run somewhat over or under the standard path provision. Using \$950 million, there should be

fewer occasions when we would allow for "higher than normal" excess reserves demands, and some additional times when we would allow for lower demands.

Borrowing ran a little over the path level in the April 6 and April 20 reserve periods, averaging about \$330 million. There was a further rise to about \$440 million in the May 4 period, when the objective was still \$300 million, as the Desk coped with the post-tax-date bulge in Treasury balances and firmer than desired money market conditions. So far in the current reserve period, which ends tomorrow, borrowing has averaged about \$375 million. Part of the pick-up in borrowing since March has been in the seasonal component, which tends to rise in the spring even in the absence of added money market pressure. In this sense, the increase in pressure since late March may be a bit less than might be associated with a \$200 million rise in path levels of borrowing. However, I am not aware of a simple mechanical adjustment to be made for this so-called "seasonal borrowing" seems to be product both of reserve pressures and of strictly seasonal factors.

Funds rates tracked fairly close to expected levels, though with some upward pressures surrounding the tax date. Average rates hovered in the  $6\frac{3}{4}$  -  $6\frac{7}{8}$  percent area through April and the first few days of May, with occasionally higher rates that elicited fairly aggressive Desk action to help keep reserve conditions in line with Committee intentions at the time. Following the early May decision to foster a shade more firmness,

the Desk dragged its feet in meeting reserve needs, and this soon led to a range of trading around 7 percent or a little above.

As this second move was being undertaken very shortly before the Treasury began to action its quarterly refunding issues, a particular effort was made to let the modified System stance be perceived and digested by the market. At the same time it was a delicate undertaking since we wanted to avoid giving an impression that the move was any greater than the small intended step noted above. Uncertain reserve estimates in the wake of heavy Treasury tax flows added to the complexities. Briefly, funds traded up to the 7-1/4-3/8 percent area, but further reserve injections then brought the trading range back to around 7 or a shade over. We did see higher rates yesterday, though, as the Treasury's large quarterly financing was being settled. This morning, funds are back at 7-1/16. Through yesterday, the average fund rate in this period is 7.08 percent.

The tax flows, with their hard-to-predict daily patterns, directly complicated the forecasting of Treasury balances at the Fed--though the problems were much less than a year ago. Operations were also complicated by some other, partly related, developments. One was changes in required reserves which stemmed to some extent from build-ups and then run-downs in transaction accounts to pay taxes. Another was the varying volume of extended credit, which partly changed in response to the ebb and flow of Treasury tax and loan account balances. However, good communications with the institutions involved

enabled us to cope pretty well with variations in extended credit.

The increase in outright System holdings over the period came to a net of about \$7.55 billion, the bulk of it comprising two large purchases of coupon issues in the market totaling nearly \$6.6 billion. The rest reflected purchases of bills and notes from foreign accounts, partly offset by some small redemptions of agency issues. The concentration on coupon issues continued to reflect the relative scarcity of bills, as the Treasury paid down bills while issuing more notes and bonds.

The outright purchases were somewhat less than was contemplated when we asked for a temporary enlargement of the leeway to \$10 billion. In part this was because Treasury balances did not climb quite as high as had been anticipated earlier. In addition, since the last part of the run-up in Treasury balances was expected to be reversed quickly, it seemed more prudent to meet a sizable part of the need with self-reversing repurchase agreements and thereby lessen the need for big reductions in outright holdings as the Treasury's balances worked down. Thus in the latter part of the period we made active use of repurchase agreements, both customer-related and for the Fed's own account. Repos provided particular flexibility in the period when we were seeking to convey the extent of the System's recent slight firming move.

Market yields generally rose about 40 to 50 basis points over the intermeeting period, through last night. The

lower trade deficit reported this morning has shaved a few basis points off that rise. Underlying the rise was a sense that the economy is continuing to show solid growth--not very rapid, but at a pace that is narrowing appreciably the margins of slack in human and physical capacity resources. Current price news remained mixed, but a number of anecdotal reports suggested that producers have been able to put through increases and make them stick, while many analysts have tended to raise their estimates of the pace of likely price pressures in coming quarters. In part, rates moved up because of perceived or anticipated steps to firm monetary policy--but we have also heard comments to the effect that the markets, especially longer term markets, welcomed signs of Federal Reserve resistance to inflation, and might have reacted more negatively to an absence of policy response. There was particular market discouragement with the February trade figures, reported just a month ago, given their indication of continued strength in imports. There seems to be a growing realization that domestic demands must be held to a slow growth track if the trade deficit is to be overcome. The markets did take some heart last Friday with the report of a modest rise in April producer prices (except food and energy), especially as this coincided with the conclusion of bidding on the Treasury quarterly refunding package, but the underlying mood remains quite cautious, with participants tending to interpret incoming information on the side that would lead to higher rates. Thus a large part of last Friday's price gains eroded on Monday as the

popular CRB commodity index pushed higher. This morning bond prices gapped up about a point on the trade deficit number but then gave back about half the gain.

In the Treasury market, yields on most short to intermediate issues were up by about 45-50 basis points over the period, while long-term issues were up a slightly more modest 40 basis points or so. The Treasury raised about \$14 billion in the coupon market, mostly in the mid quarter refunding package of 3, 10, and 30-year issues that settled yesterday. Those issues were pretty well bid for, especially the two longer ones where Japanese interest was very substantial. Possibly adding to interest in the 30-year bond is the prospect that the Treasury may have to skip this maturity in the next refunding as it has now almost exhausted its authority to sell bonds at rates above 4-1/4 percent and sees only slim likelihood of getting new authority in the next few months. It is not yet clear how well the new refunding issues are distributed. At present they are trading above issue price but there has been no real test of the market since they were sold last week. A particularly intriguing question is the solidity of placement with Japanese buyers. These were once considered good solid "going away" sales, but there is more question nowadays as to whether these buyers may not have acquired more of the "trading mentality" now typical of many U.S. buyers.

In the bill market, rates rose about 45-50 basis points, following along with higher Fed funds and financing

costs, even though the Treasury was continuing to pay down bills--by about \$9 billion during the interval, including a chunk of cash management bills repaid after the April tax date. In yesterday's auctions, 3- and 6-month bills went at average rates of 6.28 and 6.50 respectively, compared with 5.69 and 6.00 percent just before the last meeting.

Various private short-term market rates, such as on commercial paper and bank CDs, also rose on the order of 1/2 percentage point over the period, and in response major banks raised their prime lending rates by 1/2 point to 9 percent.

In the Federal agency sector, I should mention that the market perception of FICO issues improved perceptibly over the period. This is not because market participants have felt any better about the underlying situation of thrifts, which is still seen as very grim indeed, but because of some innovative financing in which a dealer took down a sizable block of FICO bonds, separated the coupons from the corpus and placed the stripped issues with investors who seemed to find the separate pieces more appealing than the whole. This relieved the imminent overhang of new FICO issues and caused the spreads on earlier whole issues to narrow from about 115 basis points to something just under 100. One has to wonder how durable this improvement will be, but for the moment that market feels better.

As to the market's outlook more generally, it seems to me that most observers have now folded in the System's latest slight firming fairly completely. They seem to anticipate funds

trading around 7 percent or a shade higher. Most participants look for little further change immediately but do seem to expect further firming moves as the year progresses. Fewer participants now seem to look for rate declines than was the case a month or two ago, though the increases expected by many others are of rather moderate size.

Michael J. Prell  
May 17, 1988

FOMC Briefing--Economic Outlook

This morning's trade data are the last major piece in the first-quarter GNP puzzle. Ted will be saying a few words about them later. Combined with the other items that have become available recently, they suggest that the Commerce Department next week may well be doubling its initial Q1 growth estimate of 2-1/4 percent. Such a number would be more in line with the labor market data, the continuing strength of which, as you know, was the main factor leading us to raise our projection of GNP growth in the second quarter to 3-1/2 percent.

The staff has consistently been above the average of private forecasters in our expectations of growth since last fall, but we, too, have been surprised by the pace of expansion thus far this year, and by the size of the drop in the unemployment rate. The reduced slack in the economy has been reflected in a slightly higher projected rate of wage and price increase in coming months. However, we have not carried that higher inflation rate through 1989; instead, on the basis of the sentiment expressed by Committee members at the March meeting, we have assumed that monetary policy imposes greater restraint on aggregate demand. In this forecast, the federal funds rate moves into the 8-1/2 to 9 percent range by early 1989, and the long Treasury bond edges above 10 percent; the rise in short rates is a percentage point more than

contemplated in the last Greenbook, so that it is now more discernibly an increase in real as well as nominal terms.

Whether such a rise in rates will be needed to contain inflation is, of course, far from certain. Basically, our projection raises two separate questions: first, how much slowing in output growth is needed to prevent a pickup in inflation, and, second, is that slowing likely to occur in the absence of greater monetary restraint?

In addressing these issues, let me begin by noting that, until recently, indications of significant pressure on resources and of consequent price acceleration were limited largely to crude and intermediate materials. Compensation trends were fairly stable, even though rising living costs were eroding real wages. It is the staff's assessment, however, that we have entered a new phase in which the labor markets have reached a degree of tautness that is likely to be associated with a fuller pass-through of price increases into wages and thus with an appreciable acceleration of labor costs.

To be sure, the available evidence on this score is still not clearcut. The most notable piece of information, we think, is the marked rise in the Employment Cost Index in the first quarter. This put the increase in compensation over the year ended March at about 4 percent-- $1\frac{1}{2}$  to  $3\frac{3}{4}$  of a point more than the twelve-month changes had been running. Because the first-quarter number was affected by a jump in employers' contributions for social security, one must look beneath the totals to determine whether there are signs of more general market-related pressure. We went through the dissection in the Greenbook. In

a nutshell, our sense from all the statistical and anecdotal information is that there **has** been an overall firming, with the pickup in manufacturing activity showing through in some convergence of the compensation increases in the goods-producing and service sectors.

Admittedly, the step-up in pay has been surprisingly mild to date. But, given the lags in the process, we have yet to see the full consequences of the drop in the jobless rate that has occurred since last fall. It is with this in mind that we have put together a forecast that implies a need to move the unemployment rate back up if wage pressures are to be held in check. You will note that we do project some further rise in wage inflation, with compensation accelerating into the 4-1/2 percent neighborhood, even though the unemployment rate rises to 6 percent by the end of 1989. This is because consumer price inflation is expected to run in the 5 percent range for a while, as a result of continued increases in import prices, a rise in energy prices, and some pass-through of higher materials costs.

If, then, it is necessary to restore somewhat greater slack to the labor markets in order to contain inflation, the next question is what growth rate of output is consistent with that objective. We believe the answer is: less than 2-1/2 percent. The steepness of the drop of the unemployment rate over the past year and a half would suggest that the number might even be lower than that. A pattern of outsized declines in unemployment relative to GNP growth could be symptomatic of a deterioration in productivity as less skilled workers are put on payrolls in a tight labor market. But we believe that GNP

growth actually has been stronger than estimated, and that later revisions of the data will tend to move things into closer alignment with the previous Okun's Law relationship.

Moving now to the second issue I raised earlier, what are the chances that the required moderation of output growth would occur without restrictive policy action? There are, after all, respected analysts who are projecting that this expansion will slow soon of natural causes, so to speak--although I might note that some of them are nonetheless pessimistic about the chances of avoiding a pickup in inflation. The focus of the endogenous slowdown argument most often is the rapid growth of nonauto inventories since the latter part of 1987. We believe there is something to this view, but not enough.

Although the recent pace of inventory accumulation is unsustainable over the longer haul, the undesired portion of the stock-building seems to have been small to date, and pretty much limited to some segments of retail trade. In the manufacturing and wholesale sectors, the accumulation that has occurred appears to have been mainly intentional, and related in large part to the rising demand for capital equipment and other traded goods. With the prices of materials and components rising rapidly, and delivery times lengthening, there probably has been a good deal of precautionary or speculative stock-building going on, and some firms would be happy with even more inventory than they have. Especially in manufacturing, the current stock-to-sales ratio is low.

In our forecast, there is a gradual slowing in inventory investment. It is led initially by retailers, who may have to cut prices and trim their ordering plans because consumer demand is unlikely to be strong enough to clear up all of their problems. By the latter part of the year, manufacturers are expected to moderate their accumulation, when slower growth of final sales becomes evident and the pressures on materials supplies begin to ease.

The keys to the strength of final demand still appear to be exports and business fixed investment. As I noted earlier, Ted will be addressing the trade picture. As regards plant and equipment spending, we have raised our projection of 1988 real outlay growth by a couple of percentage points. This change is almost entirely accounted for by the great-than-anticipated surge in spending in the first quarter. If our forecast is realized, nominal spending for the year will exceed somewhat the increases indicated by the winter McGraw-Hill and Commerce surveys.

One would have to assign a wide range of uncertainty to our forecast at this point. The first-quarter strength in BFI reflected in good part an extraordinary spurt in computer shipments, which may have been a fluke, or may have been a precursor of another wave of computer acquisitions, perhaps stimulated by the attractiveness of new products. More generally, there is a growing view that businesses are scaling up investment plans and that we may be seeing the kind of capital spending boom that has come at the mature phases of other cyclical expansions. At the same time, though, there are continued reports of companies being hesitant to make major commitments, in light of their fears that there

will be a recession in the next year or so, or that the dollar might rebound.

Our capital spending forecast is, as best one can define it, in the middle of this road. If a boom is under way, however, inflationary pressures could well be more intense in the near term than we have forecast and interest rates could have to rise even more than we have indicated, given that investment activity historically has proven to be very interest-inelastic in the short run.

As it is, in our forecast, the higher interest rates damp the demand for housing most noticeably in the near term, and then leave their imprint more broadly on domestic demand, in part through some negative effect on wealth as well as on financing costs. But besides simply limiting pressures on labor and capital resources, the rise in interest rates is assumed to reduce the tendencies toward dollar depreciation, and consequently import prices rise less in 1989 than in our previous forecast. Weaker output growth and less dollar weakness also should help damp oil price increases. It is because of these less direct effects that we get a fairly substantial inflation-reducing effect from a modest alteration in the growth path of GNP and only a slight increase in unemployment relative to our last forecast.

E.M. Truman  
May 17, 1988

FOMC Presentation—International Developments

This morning, as has already been reported, the Commerce Department released its report on U.S. merchandise trade in March on a not-seasonally adjusted, c.i.f. basis. The deficit was \$9-3/4 billion. The staff had expected a deficit of just under \$12 billion. Exports, which are seasonally strong in March, were at a record of almost \$30 billion, somewhat higher than the staff had expected. An unanticipated part of the increase was a surge in exports of non-monetary gold. Imports were about \$39 billion, about in line with our expectations. Oil imports declined in both quantity and price, generally consistent with our preliminary estimate. Non-oil imports increased further in March, though less than implied by seasonal factors. Today's data together with an anticipated upward revision in the deflator for non-oil imports in the first quarter (based on the BLS price information released in late April) suggest, as we have already discussed, a substantial upward revision in real net exports of goods and services in the GNP accounts in the first quarter.

However, the March trade data do not suggest a substantial revision in the May Greenbook's outlook for balance of the forecast period, except to reinforce our view about the underlying strength of non-agricultural exports. That outlook is not significantly different from the one presented in the March Greenbook, but it incorporates the net effect of several different factors.

First, the higher path of U.S. interest rates now assumed in the forecast would normally be expected to increase slightly the current

account deficit because our portfolio liabilities exceed our portfolio assets. However, the effects in the forecast of the higher interest rates were more than offset by other changes in our analysis of portfolio receipts and payments that were produced by a closer examination of this increasingly sensitive aspect of our accounts.

Second, the assumed higher path of U.S. interest rates--real and nominal--caused us to reduce somewhat our projection of the rate of depreciation of the dollar in terms of other G-10 countries' currencies over the forecast period. The adjustment, which amounts to about 3 percent on the average level of the dollar by the end of 1989, depresses real net exports a bit, but the muted J-curve implies a limited net effect on the nominal current account balance during the forecast period. I would note that the staff's projection for the dollar is based primarily on a longer-term view of what is likely to be involved before equilibrium is restored to our external accounts rather than a firmly held view about developments over the next 6-8 quarters.

Third, the lower level of U.S. economic activity now projected for 1989 tends to improve the outlook for our external accounts, partially offsetting the effects of the smaller depreciation of the dollar over the projection period.

Fourth, economic expansion in the foreign industrial countries appears to have been somewhat stronger in the first quarter than we had earlier anticipated, with output growing on average at an annual rate of about 2-1/2 percent. However, the pace of expansion in some countries--in particular, in Canada, the United Kingdom, and to a lesser extent Japan--along with rapid money growth in most of these countries have added to concerns of foreign officials about inflation. Higher interest

rates in this country and the reduced downward pressure on the dollar that we are now projecting increase the likelihood that these concerns will give rise to somewhat tighter monetary conditions abroad. Along with slower growth in the United States next year, the net result is expected to be slightly less growth on average in the other industrial countries over the balance of the forecast period--averaging a bit under 2 percent at an annual rate.

Finally, as Mike mentioned, we have incorporated into the forecast a slightly lower price of imported oil in 1989 in recognition of weaker demand and the higher level of the dollar and of dollar interest rates. Largely as a consequence, U.S. oil imports are projected to be about \$4 billion lower in 1989 than in the last Greenbook.

On balance, however, the basic contour of our forecast has not changed significantly from that contained in the March Greenbook. Propelled in large part by rising exports, we expect a marginally improving trade balance in nominal terms over the remaining quarters of this year and a larger improvement next year. Because of the deterioration in non-trade current account transactions--largely reflecting lower capital gains due to the dollar's projected much slower rate of depreciation--the current account is expected to show little improvement this year but greater improvement next year, declining to a deficit of about \$130 billion at an annual rate by the fourth quarter. Meanwhile, net exports of goods and services in real terms should improve substantially in both years; much of the improvement in nominal terms continues to be masked by the projected faster rise in prices of imports than in prices of exports.

Thank you, Mr. Chairman.

May 17, 1988

Policy Briefing  
Donald L. Kohn

As background for the Committee's consideration of its policy options today, I thought it might be useful to review possible interpretations of financial developments since the last FOMC meeting in terms of their implications for the thrust of monetary policy, to look at certain key financial variables in a longer-term perspective, and to relate this perspective to the monetary policy assumptions behind the Greenbook outlook as already outlined by Mike and Ted.

In terms of developments since the last meeting, increases in reserve pressures--or at least the market's perception of them--and in the federal funds rate generally were preceded by upward movements in other market interest rates, and the actual tightening moves had little market effect. This, by itself, has little import, except to suggest that we were doing about what the market thought we would do, given the incoming data on the economy and prices. Whether the firming of policy represents, or was seen as representing, increased real restraint on the economy is an open question. The slight firming of the dollar on foreign exchange markets and small decline in many broad measures of stock prices suggest that real interest rates may have risen a bit over the intermeeting period. However, with long-term rates increasing about in line with short-term rates, the firming undertaken since the last meeting seems only to have kept pace with changing market perceptions of the strength of demands on the economy and the potential for greater inflation. Judging from the still fairly

steep slope of the yield curve, markets apparently continue to expect substantial further upward movements in short-term rates over coming quarters.

The markets' expectations in this regard, as well as the staff forecast, seem to be supported by the behavior of interest rates and other key financial variables over the past year or so and their apparent relation to the economy. Nominal interest rates have fluctuated over a fairly wide range over the past year, but on balance are now 1/4 to 1/2 percentage point above their levels of a year ago. Real interest rates are far more difficult to judge, given the problems of discerning inflation expectations. But surveys from both the University of Michigan and Richard Hoey indicate that movements in these expectations have broadly tracked variations in nominal rates over the last year or even longer. Inflation expectations had risen substantially in April and May of 1987, dropped a bit following the stock market crash, but by April of this year had rebounded to levels of about last May. The pattern of expectations tracking with nominal rates also can be seen in the tendency of long-term rates to move up and down with short-term rates; over the past year the slope of the yield curve has changed very little on balance. On balance, comparing one-year ahead inflation expectations to one-year bill rates, real interest rates appear to be a little over 2 percent or so, perhaps slightly above their levels of one year ago, which in turn were not much different from real rates over the previous several quarters.

The significance of this observation is that these levels and movements in real rates were consistent with growth in the economy over

recent quarters at a pace that is not likely to be sustainable without leading to accelerating inflation. Whether the, at most, modest increase in real rates over the last year has been enough to contain price pressures depends not only on the potential strength of those pressures, but also on the influence of other key financial variables that affect spending decisions. In this regard, the evidence is mixed. The dollar has fallen about 7 percent over the last year against other G-10 currencies, but stock prices also have moved lower. The slow money growth of 1987 does not seem to have been reflected in subsequent weakness in demand, and following its pickup early this year M2 by April was about 5 percent above its level of a year ago. With considerable support for expansion coming from the external sector, relatively tight monetary policy involving high real interest rates may be necessary to get the required restraint on domestic demand, in the context of little additional help on the fiscal side. In the staff forecast, rates are not yet at the requisite levels, and as a consequence, nominal and real rates are projected to rise further.

The specific course of rates over the near-term is not crucial to the staff's forecast, as Mike indicated, but alternative C might be considered broadly consistent with something like this process of rising rates envisioned in that forecast. All the alternatives are expected to involve some deceleration of money growth from recent rates, given the ebbing of tax effects and the impact of the recent turnaround opportunity costs. But that deceleration would be greatest under C, and the firming of reserve pressures under that alternative would establish conditions for damped money growth in the third quarter. The monetary restraint embodied in the

staff forecast implies a marked slowing of money growth over the balance of the year. For the year as a whole, M2 growth would be expected to be around the middle of its range, but given its growth rate thus far this year, this will require expansion at only a 4-3/4 percent rate from April through December. Our econometric models actually suggest that growth a little below the midpoint for the year could be consistent with the staff's GNP and interest rate paths. Given its greater interest elasticity, M1 would be expected to decelerate even more than M2 over the balance of 1987. In fact, the narrow aggregate might show little net growth on balance from the second to the fourth quarters of this year.

Alternative B would be consistent with delaying further action until the tightening of recent weeks has had a chance to have some effect on the economy and prices, or at least until incoming data suggest that other forces already at work aren't themselves moderating the pace of expansion. The current structure of rates does not suggest the markets expect much if any immediate further tightening, though that could change if incoming data continue to show strength in the economy or prices. If there were concerns that the risks lay more on the side of strength in the economy and greater price pressures, the Desk could be instructed, using the usual collection of mights and woulds, to be especially alert to indications that a tighter policy was appropriate.

With respect to other language in the directive, the Committee may again want to consider whether it wants to retain the sentence on additional flexibility in operations--shown in brackets in the draft directive. While operations have been sensitive to the level of the

federal funds rate at times over the recent intermeeting period, this was mostly in the context of conveying as clearly and promptly as possible the sense of a change in policy stance, rather than to deal with concerns about market fragility. Interest rates and even stock prices in recent months have not been substantially more volatile than before the October crash, and risk premia in credit markets are comparable to earlier in 1987. Moreover, the economic outlook probably is no more uncertain than at many other times in recent history. Even so, one has a sense that there is a potential for large, disruptive market reactions to small events. Even without special instructions, the Desk probably has scope in its operations to deal with such circumstances, but if the Committee wished to stress the possibility of a flexible approach to policy implementation, the sentence might be retained.

May 17, 1988

Base Briefing  
Donald L. Kohn

President Melzer makes a good case for some limit or binding constraint on the Federal Reserve's provision of liquidity to the economy under conditions when, judged by historic relations, that provision is deviating very substantially from what would be considered consistent with steady, noninflationary growth. In effect he has proposed a policy regime that would have elements of both rules and discretion. Discretion would be exercised so long as growth of the nominal anchor was within a fairly wide band. But when growth got to one side of the band, a rule would be followed to keep the anchor within or return it to the band. The objective is to prevent very large, cumulative errors in policy in either direction.

The key question is whether the monetary base, his proposed nominal anchor, is sufficiently reliable to play the role of constraint in that regime. Because his plan involves relinquishing discretion in adjusting reserve positions under some circumstances, the Committee ought to be reasonably confident that a growth band for the base, however wide, generally would become binding only when the response triggered would be stabilizing for the economy.

As a general proposition, the various statistical tests done on the base suggest that it is no worse a guide to policy than the other money and debt aggregates, and probably a little better. The errors in its demand relationships are considerably less than for M1-A and M1, and

about in line with M2. Like all the aggregates it has undergone some change in the 1980s, reflecting in particular deregulation of deposit rates, which affects the demand for the base through its impact on the derived demand for reserves. As a consequence, its demand relationship probably has become a bit more interest sensitive since 1980. However, the empirical tests also are consistent with a reasonably stable demand once these changes are taken into account. And, because of the high weight of its currency component, it remains considerably less interest sensitive than M1 or M2, probably making it a better guide to policy than either over the intermediate term, when disturbances to spending are likely to be more important than disturbances to its demand.

At the least, these considerations may argue for including the base among the aggregates for which we announce annual ranges. There is a sense in which the base is not a very satisfying concept; it does not coincide even theoretically with the public's transaction balances, or a reasonably comprehensive collection of its savings instruments. Moreover, we do not know who is holding a significant part of its currency component. But its statistical properties may make a range for it an attractive substitute for M1 as a narrow aggregate. Its range could be treated like the current ranges for M2 and M3--reset each year, and open to being violated, for example in response to unanticipated shifts in demands for currency or reserves relative to GNP.

Whether the base is sufficiently immune to major disturbances in its demand to serve as the trigger for the giving up of discretion under some circumstances is a more difficult question. The relatively

small errors in its demand equation predictions give some comfort in this regard. These result to some extent from the tendency of errors in currency and deposit equations to be offsetting. For example, despite a major miss in the currency equation in 1987, base growth was only 1.7 percent above what was predicted by the combined currency and deposit equations. Thus demand side shocks, by themselves, are unlikely to cause the base to breach a 4 or 5 percentage point band. On balance, even making allowance for some unexplainable perturbations to demands for currency or reserves, very strong growth in the base probably would be associated with at least some strength in the economy. Similarly, substantial weakness in the base would usually signal some softness in the economy.

However, there is some irreducible risk that considerable strength or weakness in the base would occur in circumstances in which a response would not necessarily be appropriate. It is tempting to make such judgments on the basis of past growth in the base relative to President Melzer's or some other ranges. In a sense this is not a legitimate test, since as soon as the base triggered a different monetary policy, the subsequent paths of the base as well as the economy would have been altered. Even so, Chart 3 following p. 11 in the Board staff memo or the chart enclosed with President Melzer's memo provides the raw material for such an exercise. In recent years, the base bounds suggested by President Melzer raise the question of whether the Federal Reserve should have reduced the degree to which it was tightening in 1981 or easing in 1983 or 1986. In fact, each of these

episodes was followed, with some lag, by a policy reversal. But a base constraint would have had policy responding sooner, assuming the situation would have developed in any case.

And once the bounds were hit, the response likely would have been quite strong, at least in interest rate terms, potentially involving sharp reversals of previous rate movements. This results from the interest inelasticity of the base, which implies that rate movements might have to be substantial if the base were to be contained within the range in the face of strong impulses to move outside. In some cases such a response might be appropriate--that is, stabilizing for the economy. But in other cases the implied response may seem to involve inappropriate movements in interest rates--at least in terms of degree.

If the Committee wanted to adopt something like President Melzer's proposal, at some point it would need to consider a number of subsidiary issues. One, should it use quarterly growth rates as in his proposal, or a moving average over several quarters? The latter might avoid reacting to transitory shocks to the economy or base demand, but it would risk delaying response to an emerging trend. Two, exactly how should policy react to a potential or actual breach of the ranges? The total base is not directly controllable, and some sort of reaction would have to be decided on--for example holding nonborrowed reserves constant or even adjusting them depending on the size of the deviation in the total base from its range. A nonborrowed base objective would obviate the need for such a decision, since it could be directly controlled and kept within the limits. The nonborrowed base also is a little more

interest sensitive, implying that rate movements at the limits might be a little smaller than if the Committee tried to keep the total base from moving outside its range in the short run. Three, what should the range be; and assuming the range was initially set around recent base growth rates, should there be a plan to reduce the range over several years by a preset formula to something more consistent with price stability?